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10/780,621

02/19/2004

Takashi Imai

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EXAMINER

HASSAN, AURANGZEB

ART UNIT

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2182

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/780,621 | Applicant(s) IMAI, TAKASHI | |
| | Examiner AURANGZEB HASSAN | Art Unit 2182 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/23/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 18 - 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 18: line 15 the phrase "the a" in combination of the definition of a connection unit claim 18: lines 9 - 10, renders the claim indefinite. The Examiner notes that upon first observation the phrase "the a" appears to be a minor informality with two possible corrections in the use of "a" or "the", however upon further inspection both interpretations would render the claim indefinite.

Utilizing the first interpretation; the claim would read "a plurality of connected external apparatuses..." This interpretation would be indefinite because an external apparatus can be connected only via a connector and connection unit; however the connection unit necessitates a plurality of

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connectors connectable only to a single external apparatus, therefore the word **connected** would be best interpreted to represent that there are external apparatuses connected to each other and not connected to the information processing apparatus as claimed. The claim does not enable nor provide support for a plurality of external apparatuses and therefore indefinite.

Utilizing the second interpretation; the claim would read as "the plurality of connected external apparatuses..." This interpretation would raise a lack of antecedent basis problems because there is not positive recitation of a plurality of connected external apparatuses preceding line 15. Furthermore it would also have the indefinite problems from the first interpretation above.

The Examiner will best interpret the limitations in light of the claims and specification to represent a connection unit in which a plurality of external apparatuses are connectable to the information processing apparatus via a plurality of connectors.

Appropriate clarification/correction required.

Claim Rejections - 35 USC § 102

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 18, 19, 23 - 25 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kanai et al (US Publication Number 2004/0153597 hereinafter "Kanai").

5. As per claim 18 Kanai teaches an information processing apparatus capable of communication with an external unit connected thereto, comprising: a USB device controller connectable with said external unit for controlling communication between said connected external unit and said information processing apparatus (USB function controller 24 connectable to external USB function device 200, figure 3); a USB host controller connectable with said external unit for controlling communication between said connected external unit and said information processing apparatus (USB host controller

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23 connectable to external USB host device 100, figure 3); a connection unit having a plurality of connectors for connecting with the external apparatus (transceiver 25, figure 3); and a switching unit (Switching control register 27C, figure 3) for switching a controller with the external apparatus between said USB device controller and said USB host controller, for communication between the connected external apparatus and said information processing apparatus, wherein said switching unit determines the type of the connected external apparatus and if it is determined that a plurality of connected external apparatuses include USB device apparatuses and USB host apparatuses, connects the USB device apparatus with the USB host controller (USB communication of device with host, figure 4, paragraphs [0063 - 0064]) and the USB host apparatus with the USB device controller (USB communication of host with device, figure 4, paragraphs [0063 - 0064]).

The Examiner notes that the claim has been rejected in light of USC 112 rejection above and the best reasonable interpretation therein. Also the information processing apparatus and USB controllers of Kanai are "capable" of communication and "connectable" to a multiplicity of devices and no teachings of

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Kanai stipulate that the "capable/connectable" steps of the claim limitations cannot be accomplished by the prior art.

6. As per claims 23 and 28, Kanai teaches a method and computer-readable storage medium, for an information processing apparatus capable of communication with an external apparatus comprising a USB device controller connectable with said external unit for controlling communication between said connected external unit and said information processing apparatus (USB function controller 24 connectable to external USB function device 200, figure 3), a USB host controller connectable with said external unit for controlling communication between said connected external unit and said information processing apparatus (USB host controller 23 connectable to external USB host device 100, figure 3), and a connection unit having a plurality of connectors for connecting with the external apparatus (transceiver 25, figure 3); and a switching unit (Switching control register 27C, figure 3), said method comprising: a switching step for switching a controller with the external apparatus between said USB device controller and said USB host controller, for communication between the connected external apparatus and said information processing apparatus, wherein said switching unit determines the type of

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the connected external apparatus and if it is determined that a plurality of connected external apparatuses include USB device apparatuses and USB host apparatuses, connects the USB device apparatus with the USB host controller (USB communication of device with host, figure 4, paragraphs [0063 - 0064]) and the USB host apparatus with the USB device controller (USB communication of host with device, figure 4, paragraphs [0063 - 0064]); a device control step for controlling, by a USB device controller, communication between the USB host apparatus and the information processing apparatus (USB function controller 24 connectable to external USB function device 200, figure 3); a host control step for controlling, by a USB host controller, communication between the USB device apparatus and the information processing apparatus (USB host controller 23 connectable to external USB host device 100, figure 3)

7. As per claims 19 and 24, Kanai teaches an apparatus and method wherein the connection unit is an AB type connector in conformity with the Universal Serial Bus communication standards, and wherein if a B type connector is connected with said connection unit, it is determined in said determination step that the external unit is the USB host unit (131, figure 9).

8. As per claims 20 and 25, Kanai teaches an apparatus and method wherein the connection unit is an AB type connector in conformity with the Universal Serial Bus communication standards, and wherein if an A type connector is connected with the connection unit, it is determined in said determination step that the external unit is the USB device unit (231, figure 9).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 21, 22, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanai in view of Ying et al. (US Publication Number 2003/0172223, hereinafter "Ying").

11. As per claims 21 and 26, Kanai teaches an apparatus and method comprising: an execution status determination step of

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determining an execution status of said device control step and said host control step (switching determines whether the host device or function device is connected, paragraph [0060]).

Kanai fails to teach a warning step of, if it is determined in said execution status determination step that said device control step or said host control step is in execution, and said control step, selected from said first step and said host control step in correspondence with the type of the external unit determined in said determination step and controlling communication between the external unit and the information processing apparatus, is in execution, giving a warning to an operator of the information processing apparatus, wherein in said selection step, said control step that is in execution is selected as said control step of controlling communication between the external unit and the information processing apparatus.

Ying analogously teaches an apparatus and method comprising: a warning step of (busy, paragraph [0034]), if it is determined at said execution status determination step that said device control step or said host control step is in execution, and said control step, selected from said device step and said host control step in correspondence with the type of said external unit determined by said determination step (connected

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and induced from the data input ends D+ and D-, paragraphs [0030-0032]) and controlling communication between said external unit and said information processing apparatus, is in execution, giving a warning to an operator (displayed as red, yellow and green, paragraph [0040]) of said information processing apparatus, wherein at said selection step, said control unit in execution is selected as said control step of controlling communication between said external unit and said information processing apparatus .

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Kanai with the above teachings of Ying. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modification in order to be able to clearly tell the user the current situation of the host, in a USB switching environment so the user may operate under a friendlier atmosphere (paragraph [0016]).

12. Kanai modified by the teachings of Ying as applied to claim 21 above, as per claims 22 and 27, Ying teaches an apparatus and method wherein if it is determined in said use status determination step that said control step in execution is no longer in execution (red light displayed when sharer is busy and

host can not switch, paragraph [0040]), said control step that has been in execution is selected in said selection step as said control step of controlling communication between the external unit and the information processing apparatus (yellow light displayed when host is not in an online state and no other host is using the USB, paragraph [0040]).

Response to Arguments

13. Applicant's arguments filed 12/17/2007 have been fully considered but they are not persuasive.

The Applicant argues that the connectors of the current application out of the plurality of connectors are used simultaneously.

As per the applicant's arguments, the Examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **simultaneous** use of the plurality of connectors) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims do not necessitate **simultaneous** use of the connectors in

the information processing apparatus.

The Examiner also notes that although the Japanese counterpart 2002-116853 was found allowable, in light of the best reasonable interpretation of the claim language the Examiner has not found the claim limitations of the current application in its current state to be allowable over the cited prior art in the rejection above.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Publication Numbers 2003/0175025 and 2003/0023804 and US Patent Number 6,549,958 teach a first and second connector with a switching mechanism via a controller.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

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expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AURANGZEB HASSAN whose telephone number is (571) 272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Tsai can be reached on (571) 272-4176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AH

**/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184**